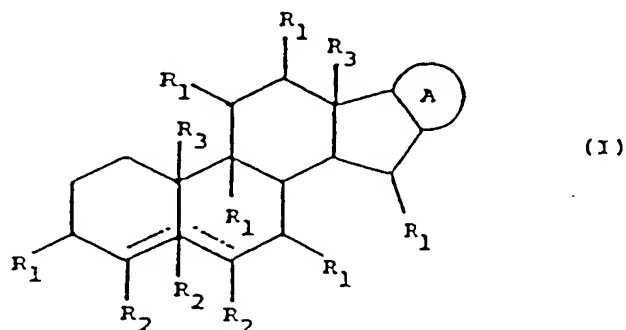


What Is Claimed Is:

1. A medicinal composition comprising at least one compound which can interact with a target cell, the at least one compound being a glycoalkaloid of the general formula I:

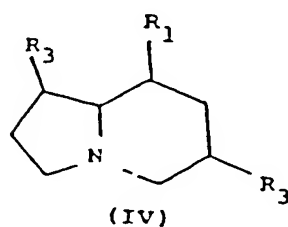
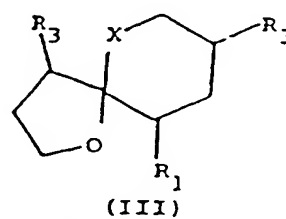
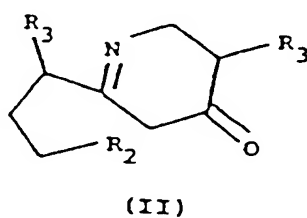


wherein:

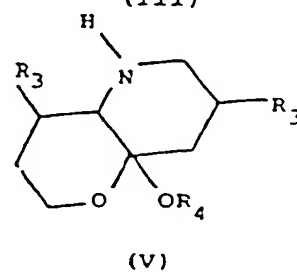
either one of the dotted lines represents a double bond, and the other a single bond, or both represent single bonds;

A: represents a radical selected from the following radicals of general

formulae (II) to (V):



or



each of R^1 is a radical separately selected from the group consisting of hydrogen, amino, oxo and OR^4 ; each of R^2 is a radical separately selected from the group consisting of hydrogen, amino and OR^4 ; each of R^3 is a radical separately selected from the group consisting of hydrogen, alkyl and R^4O -alkylene; each of R^4 is a radical separately selected from the group consisting of hydrogen, carbohydrate and a carbohydrate derivative; "X" is a radical selected from the group comprising $-CH_2-$, $-O-$ and $-NH-$; wherein the compound includes at least one R^4 group in which R^4 is a carbohydrate or a derivative thereof;

10 together with a pharmaceutically acceptable carrier, adjuvant, excipient and/or diluent, wherein the composition is essentially free of sugars derived from the at least one glycoalkaloid.

2. The composition of claim 1, wherein R^4 is selected from the

15 group consisting of glyceric aldehyde; glycerose; erythrose; threose; ribose; arabinose; xylose; lyxose; altrose; allose; gulose; mannose; glucose; idose; galactose; talose; rhamnose; dihydroxyactone; erythrulose; ribulose; xylulose; psicose; fructose; sorbose; tagatose; and other hexoses ($C_6H_{12}O_6$); heptoses ($C_7H_{14}O_7$); octoses ($C_8H_{16}O_8$); nanoses ($C_9H_{18}O_9$); decoses ($C_{10}H_{20}O_{10}$);

20 deoxysugars with branched chains (eg. apiose, hamamelose, streptose, cordycepose, mycarose and cladinoses); compounds wherein the aldehyde, ketone or hydroxyl groups have been substituted (eg. N-acetyl, acetyl, methyl, replacement of CH_2OH); sugar alcohols; sugar acids; benzimidazoles; the enol salts of the carbohydrates; saccharinic acids; sugar phosphates.

3. The composition of claim 1, wherein the at least one glycoalkaloid is selected from the group consisting of solasonine, solamargine, and tomatine.

5 4. The composition of claim 1, wherein the at least one glycoalkaloid has been extracted from a plant source.

5. The composition of claim 4, wherein the plant source is from the *Solanum* genus.

10

6. The composition of claim 5, wherein the composition is a BEC mixture of solasodine glycosides.

7. The composition of claim 1, wherein the free sugar is rhamnose,
15 or a disaccharide, trisaccharide, oligosaccharide or polysaccharide having rhamnose as a sugar moiety thereof.

8. The composition of claim 1 which is essentially free of any aglycone degradation product of the glycoalkaloid.

20

9. The composition of claim 1 in a form suitable for topical administration.

10. The composition of claim 9, which includes between about
25 0.001% to about 5 wt% of the at least one glycoalkaloid.

11. The composition of claim 1, which is in a form suitable for administration by injection.

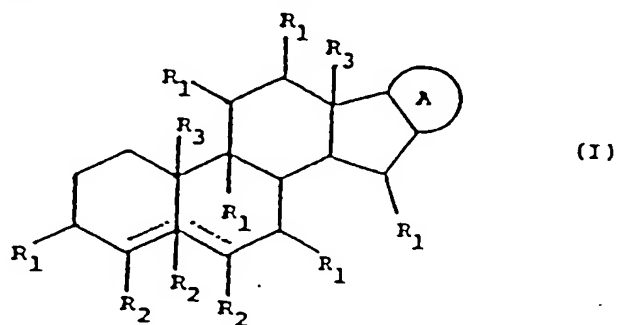
5 12. The composition of claim 11, which includes a liquid carrier selected from the group consisting of DMSO, acetic acid and lactic acid.

13. The composition of claim 1, which includes a stabilizing agent for stabilizing the at least one glycoalkaloid.

10

14. A method of preparing a glycoalkaloid preparation which comprises at least one glycoalkaloid of the general formula I:

15



wherein:

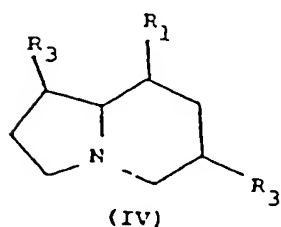
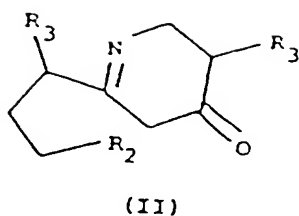
either one of the dotted lines represents a double bond, and the other a single bond, or both represent single bonds;

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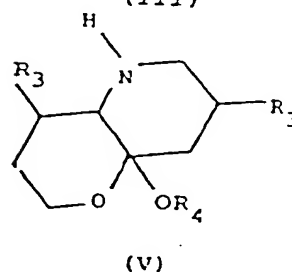
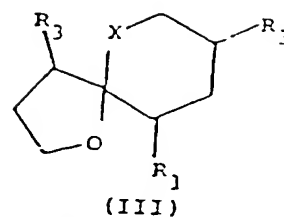
A: represents a radical selected from the following radicals of general formulae (II) to (V):

25

5



or



- each of R^1 is a radical separately selected from the group consisting of hydrogen, amino, oxo and OR^4 ; each of R^2 is a radical separately selected from the group consisting of hydrogen, amino and OR^4 ; each of R^3 is a radical separately selected from the group consisting of hydrogen, alkyl and R^4O -alkylene; each of R^4 is a radical separately selected from the group consisting of hydrogen, carbohydrate and a carbohydrate derivative; "X" is a radical selected from the group comprising $-CH_2-$, $-O-$ and $-NH-$;
- wherein the compound includes at least one R^4 group in which R^4 is a carbohydrate or a derivative thereof;
- the method including extracting the at least one glycoalkaloid from a suitable plant material to form an extract and removing essentially all free sugars derived from the glycoalkaloid from the extract.

15. The method of claim 14, wherein the plant material is from the *Solanum* genus.

25

16. A method of preparing the composition of claim 1, including

obtaining a glycoalkaloid preparation which comprises at least one glycoalkaloid according to general formula I and treating the preparation to remove essentially all of any free sugars from the preparation prior to addition of a pharmaceutically acceptable carrier, adjuvant, excipient and/or diluent.

5

17. The method of claim 15 wherein the preparation is further treated to remove any aglycone therefrom.

18. The method of claim 16, wherein the preparation is washed with
10 an aqueous solvent.

19. The method of claim 16, wherein the glycoalkaloid preparation is extracted from a plant source.

20. The method of claim 18, wherein the plant source is from the
15 Solanum genus.

21. The method of claim 18, wherein the glycoalkaloid preparation is a BEC mixture of solasodine glycosides.

20

22. The method of claim 18, wherein a time period of at least about 7 days has elapsed between the extraction and free sugar removal steps.

23. A method for the treatment or control of a condition selected from
25 the group consisting of cancer, contraception, termination of pathogenic

organisms and removal of abnormal cellular growth in a mammal requiring such treatment, the method comprising administering to said mammal an effective amount of the medicinal composition of claim 1.